

AMENDMENTS TO THE CLAIMS

Claim 1 (previously presented) A component placement machine for placing components on printed circuit boards, the machine comprising:

a dry atmosphere component storage area, wherein the component storage area maintains a dry atmosphere without baking the components;

a component placement system for taking components from the component storage area and placing the components on the printed circuit boards;

an enclosure surrounding the component storage area; and

a dry gas delivery system for delivery of a dry gas to the storage area to maintain the dry atmosphere and to prevent moisture from being absorbed by the components.

Claim 2 (original) The machine of Claim 1, wherein the component storage area includes trays containing the components.

Claim 3 (original) The machine of Claim 1, wherein the component storage area includes tapes containing the components.

Claim 4 (original) The machine of Claim 1, wherein the component storage area includes sticks containing the components.

Claim 5 (original) The machine of Claim 1, wherein the component storage area includes components in bulk storage.

Claim 6 (previously presented) A component placement machine for placing components on printed circuit boards, the machine comprising:

a component storage area, wherein the component storage area maintains a dry atmosphere without baking the components;

a component placement system for taking components from the component storage area and placing the components on the printed circuit boards;

an enclosure surrounding the component storage area; and

a dry gas delivery system for delivery of a dry gas to the storage area to maintain the dry atmosphere and to prevent moisture from being absorbed by the components, wherein a flow rate of the dry gas delivered to the storage area is controlled by a control system including a humidity sensor within the component storage area.

Claim 7 (previously presented) A component placement machine for placing components on printed circuit boards, the machine comprising:

a component storage area, wherein the component storage area maintains a dry atmosphere without baking the components;

a component placement system for taking components from the component storage area and placing the components on the printed circuit boards;

an enclosure surrounding the component storage area; and

a dry gas delivery system for delivery of a dry gas to the storage area to maintain the dry atmosphere and to prevent moisture from being absorbed by the components, wherein the dry gas is delivered to the component storage area at a first flow rate when the storage area is open and is delivered at a second flow rate when the storage area is closed.

Claim 8 (original) The machine of Claim 7, wherein the first flow rate is higher than the second flow rate.

Claims 9-18 (canceled)

Claim 19 (previously presented) The machine of Claim 1, wherein the components to be placed on the printed circuit boards are stored in the dry atmosphere within the machine and are not exposed to moisture during this storage time.

Claim 20 (previously presented) The machine of Claim 1, further comprising a heater for heating the dry gas.

Claim 21 (previously presented) The machine of Claim 1, further comprising a flow meter for regulating the flow of the dry gas to the storage area.

Claim 22 (previously presented) The machine of Claim 1, further comprising a multiplicity of inlets to provide a consistent dry atmosphere around all of the components in the storage area.

Claim 23 (previously presented) The machine of Claim 22, wherein the multiplicity of inlets includes a sprayer or diffuser.

Claim 24 (previously presented) The machine of Claim 1, wherein the components to be placed on the printed circuit boards maintain a dry atmosphere without heating.

Claim 25 (previously presented) The machine of Claim 6, wherein the components to be placed on the printed circuit boards maintain a dry atmosphere without heating.

Claim 26 (previously presented) The machine of Claim 7, further comprising a controller for automatically regulating the first flow rate and the second flow rate.

Claim 27 (previously presented) The machine of Claim 7, further comprising intermittently turning on and off the flow rate when the relative humidity set point is reached.

Claim 28 (previously presented) The machine of Claim 7, further comprising adjusting the flow rate to maintain a preset relative humidity when the relative humidity set point is reached.

Claim 29 (previously presented) The machine of Claim 7, wherein the components to be placed on the printed circuit boards maintain a dry atmosphere without heating.

Claim 30 (canceled)

Claim 31 (previously presented) The machine of Claim 1, wherein the dry gas removes at least 0.1% of the weight of the components.

Claim 32 (previously presented) The machine of Claim 1, wherein the dry atmosphere is maintained without heating the dry gas above about 50°C.

Claim 33 (previously presented) The machine of Claim 1, wherein the dry gas is nitrogen.

Claim 34 (previously presented) The machine of Claim 6, wherein the dry gas removes at least 0.1% of the weight of the components.

Claim 35 (previously presented) The machine of Claim 6, wherein the dry atmosphere is maintained without heating the dry gas above about 50°C.

Claim 36 (previously presented) The machine of Claim 6, wherein the dry gas is nitrogen.

Claim 37 (previously presented) The machine of Claim 7, wherein the dry gas removes at least 0.1% of the weight of the components.

Claim 38 (previously presented) The machine of Claim 7, wherein the dry atmosphere is maintained without heating the dry gas above about 50°C.

Claim 39 (previously presented) The machine of Claim 7, wherein the dry gas is nitrogen.

Claims 40-44 (canceled)